

Serial No. 10/779,758

Docket No. K-0604

Amdt. dated May 19, 2006

Reply to Office Action of December 19, 2005

### **REMARKS/ARGUMENTS**

Claims 1-30 are pending in this application. By this Amendment, the drawings, Abstract, specification, and claims 1-30 are amended. The drawings, Abstract and specification are amended for clarification purposes only. No new matter is added. Support for the claims can be found throughout the specification, including the original claims and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

The Office Action rejects claims 1-30 under 35 U.S.C. §103(a) over U.S. Patent No. 4,450,335 to Shimizu et al. (hereinafter "Shimizu") in view of CN 88-1-02377. It is noted that, as there was no translation available for CN 88-1-02377, Applicants hereinafter refer instead to corresponding U.S. Patent No. 4,745,250 to Mayo (hereinafter "Mayo") when referencing the Chinese reference. The rejection is respectfully traversed.

Independent claim 1 is directed to a door assembly for a microwave oven, comprising, *inter alia*, a plurality of switches each configured to be actuated upon contact with a corresponding lever, wherein at least one of the plurality of levers is in contact with at least two switches of the plurality of switches. As acknowledged by the Examiner in the remarks regarding independent claim 1, Shimizu neither discloses nor suggests such features. Further, Mayo fails to overcome the deficiencies of Shimizu.

Mayo discloses an interlock switch assembly 10, including a mounting surface 21 set at a

right angle to a front panel 14 and set within a frame 12. Operators 19 and 20 enter through apertures 16 and 18 in the panel 14 to contact first, second and third actuators 34, 36 and 100, respectively. The actuators 34, 36 and 100 contact buttons B on switches 26, 30 and 32, respectively. More specifically, linear motion imparted on the first actuator 34 by insertion of the operator 19 causes the first actuator 34 to rotate and a surface thereof to contact an actuating button B on the switch 26. The third actuator 100 also receives a portion of the linear motion provided by operator 19 to contact an actuating button B on the switch 30. Likewise, linear motion imparted on the second actuator 36 by the second operator 20 causes the second actuator 36 to rotate and a surface thereof to contact an actuating button B on the switch 32. While the switches 26, 30 and 32 are engaged as discussed above, a hook portion of the operator 19 is engaged with a surface 38 on the first actuator 34 so as to preclude withdrawal of the operator 19 through the aperture 16 while the switches are in the actuated state.

A spring 42 secures an upper end of the third actuator 100 to the frame 12 to provide for retention of the first actuator 34 in either the actuated state (shown in Figure 2 of Mayo) or the deactuated state (shown in Figure 1 of Mayo). More specifically, if an operator is inserted into aperture 16 without a corresponding operator being inserted into aperture 18, or vice versa, interengaging surfaces 46/48 and/or 50a/50b, respectively, of the first and second actuators 34, 36 are engaged, prohibiting further movement of the actuators and subsequent actuation of the switches and operation of the apparatus.

It appears that the Examiner has drawn a comparison between the first, second and third actuators 34, 36, 100 disclosed by Mayo and the plurality of levers recited in independent claim 1. However, as set forth above, each of these actuators 34, 36, 100 contacts a single button B associated with a corresponding switch 26, 30, 32. Mayo neither discloses nor suggests that at least one of the actuators 34, 36, 100 is in contact with at least two switches, as is at least one of the plurality of levers recited in independent claim 1.

Accordingly, it is respectfully submitted that independent claim 1 is allowable over the applied combination, and thus the rejection of independent claim 1 under 35 U.S.C. §103(a) over Shimizu in view of Mayo should be withdrawn. Dependent claims 2-18 are allowable at least for the reasons set forth above with respect to independent claim 1, from which they depend, as well as for their added features.

More specifically, with respect to, for example, claims 2 and 4, Mayo neither discloses nor suggests a lever with at least three arms. Rather, the first actuator 34 has two portions extending from its central axis of rotation. Likewise, the second actuator 36 has only two portions extending from its central axis of rotation. The third actuator 100 is clearly a rod shaped member with each of its two ends secured to a different portion of the mechanism. Thus Mayo neither discloses nor suggests that any of the actuators 34, 36, 100 has at least three arms, as recited in claim 2. Thus, Mayo necessarily neither discloses nor suggests a second lever with first, second and third arms configured as recited in claim 4.

Further, with respect to, for example, claims 9 and 10, Mayo neither discloses nor suggests that the aperture 16 (which may be compared to the latch hole recited in claim 9) includes a projection on its inside edge, let alone a projection which is configured to engage the latch. Rather, the projection formed on the edge of the operator 19 disclosed by Mayo is engaged on a corresponding surface 38 of the first actuator 34. Thus, because Mayo neither discloses nor suggests such a projection, Mayo necessarily neither discloses nor suggests that an arm of one of the actuators (which have been compared in the Office Action to the plurality of levers) is supported by such a projection.

Still further, with respect to, for example, claims 11 and 12, Mayo neither discloses nor suggests that one end of the spring 42 is coupled to the operator 19, let alone to a hook at the end of the operator, as is the spring recited in claim 11. Rather, the spring 42 disclosed by Mayo is coupled to the second actuator 36 and the frame 12. Thus, because Mayo neither discloses nor suggests such a spring, Mayo necessarily neither discloses nor suggests a latch which operates in the manner recited in claim 12 in response to the action of such a spring.

Additionally, with respect to, for example, claim 13, Mayo neither discloses nor suggests that the switches 26a, 26b, 30 and 32 are or may be positioned on opposite sides of the mounting surface 21, as are the plurality of switches recited in claim 13. Rather, Mayo discloses that the switches 26a, 26b, 30 and 32 are simply positioned on a single side of the mounting surface 21.

Independent claim 19 recites, *inter alia*, a board wall configured to divide a front surface and a rear surface of the latch board, and a plurality of switches provided at corresponding positions on the front and rear surfaces of the board wall. As acknowledged by the Examiner in the remarks regarding independent claim 19, Shimizu neither discloses nor suggests such features. Further, as set forth above, Mayo fails to overcome the deficiencies of Shimizu.

More specifically, Mayo discloses a single surface 21 on which the switches 26a, 26b, 30 and 32 are mounted. The switches 26a, 26b, 30 and 32 are on only one side of the surface 21, and Mayo neither discloses a board wall which divides a front mounting surface from a rear mounting surface, let alone that switches are mounted on opposite sides thereof, in corresponding positions, as recited in independent claim 19.

Accordingly, it is respectfully submitted that independent claim 19 is allowable over the applied combination, and thus the rejection of independent claim 19 under 35 U.S.C. §103(a) over Shimizu and Mayo should be withdrawn. Dependent claims 20-22 are allowable at least for the reasons set forth above with respect to independent claim 19, from which they depend, as well as for their added features.

Independent claim 23 is directed at a door assembly for a microwave oven, comprising horizontal members extending from at least one of an upper edge and a lower edge of a door, with at least one pin formed as a single unit with one of the horizontal members. Independent claim 23 further recites brackets provided on a frame of the microwave oven, each having a hole

configured to receive the at least one pin. As acknowledged by the Examiner in the remarks regarding independent claim 23, Shimizu neither discloses nor suggests such features. Further, as set forth above, Mayo fails to overcome the deficiencies of Shimizu.

More specifically, Mayo neither discloses nor suggests any type of door, let alone horizontal members which extend along at least one of an upper edge and a lower edge of such a door, or any type of pin which may be provided on such a door, or a bracket to receive such a pin. Rather, Mayo is focused only on the switching actuation mechanism, and is completely silent as to a door and/or connection mechanism for such a door.

Accordingly, it is respectfully submitted that independent claim 23 is allowable over the applied combination, and thus the rejection of independent claim 23 under 35 U.S.C. §103(a) over Shimizu and Mayo should be withdrawn. Dependent claims 24 and 25 are allowable at least for the reasons set forth above with respect to independent claim 23, from which they depend, as well as for their added features.

Independent claim 26 recites, *inter alia*, a spring with a first end coupled to an upper part of the door panel, and a second end coupled to the latch, and a fastening pin fastened through the door panel and the latch so as to serve as a rotation shaft for the latch. As acknowledged by the Examiner in the remarks regarding independent claim 26, Shimizu neither discloses nor suggests such features. Further, as set forth above, Mayo fails to overcome the deficiencies of Shimizu.

Serial No. **10/779,758**

Docket No. **K-0604**

Amdt. dated May 19, 2006

Reply to Office Action of December 19, 2005

Accordingly, it is respectfully submitted that independent claim 26 is allowable over the applied combination, and thus the rejection of independent claim 26 under 35 U.S.C. §103(a) over Shimizu and Mayo should be withdrawn. Dependent claims 27-30 are allowable at least for the reasons set forth above with respect to independent claim 26, from which they depend, as well as for their added features.

### **CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, **JOANNA K. MASON**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

Serial No. **10/779,758**

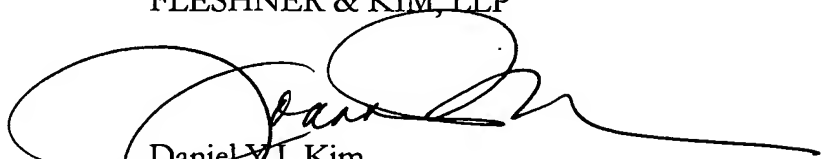
Docket No. **K-0604**

Amdt. dated May 19, 2006

Reply to Office Action of December 19, 2005

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
FLESHNER & KIM, LLP



Daniel Y.J. Kim  
Registration No. 36,186  
Joanna K. Mason  
Registration No. 56,408

P.O. Box 221200  
Chantilly, Virginia 20153-1200  
(703) 766-3701 DYK:JCE:JKM/cah

**Date: May 19, 2006**

\\fk4\Documents\2016\2016-723\83186.doc

**Please direct all correspondence to Customer Number 34610**



Serial No. **10/779,758**

Docket No. **K-0604**

Amdt. dated May 19, 2006

Reply to Office Action of December 19, 2005

**Amendments to the Drawings:**

The attached drawings include changes to Figures 2, 3, 6 and 8. These sheets, which include Figures 2, 3, 6 and 8, replace the original sheets including Figures 2, 3, 6 and 8. Various reference numerals have been amended on Figures 2, 3, 6 and 8 to maintain consistency with the corresponding description thereof in the specification. No new matter is added.

Attachment: Replacement Sheets (4)  
Annotated Sheets Showing Changes (4)



FIG. 2  
Prior Art

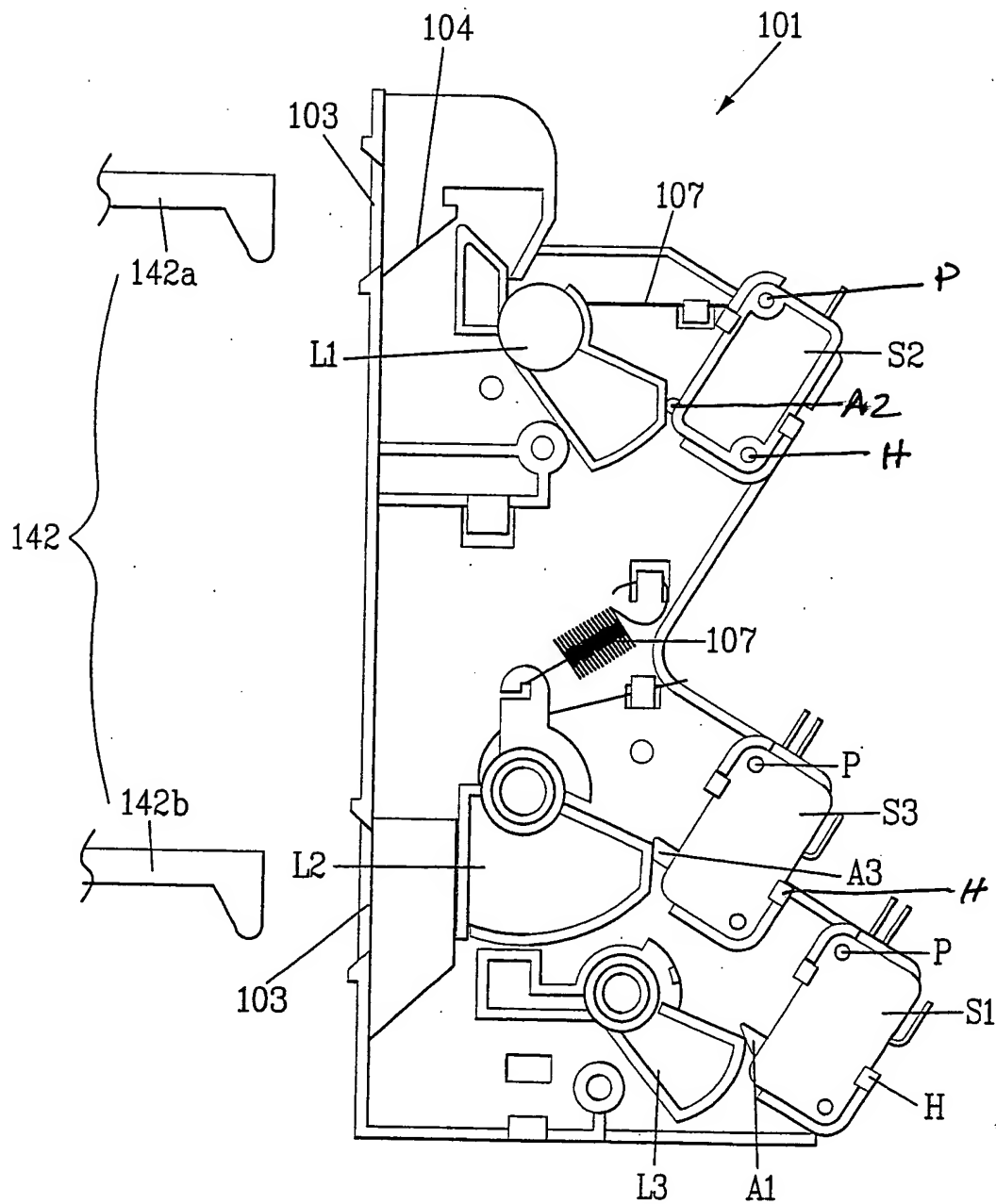


FIG. 3  
Prior Art

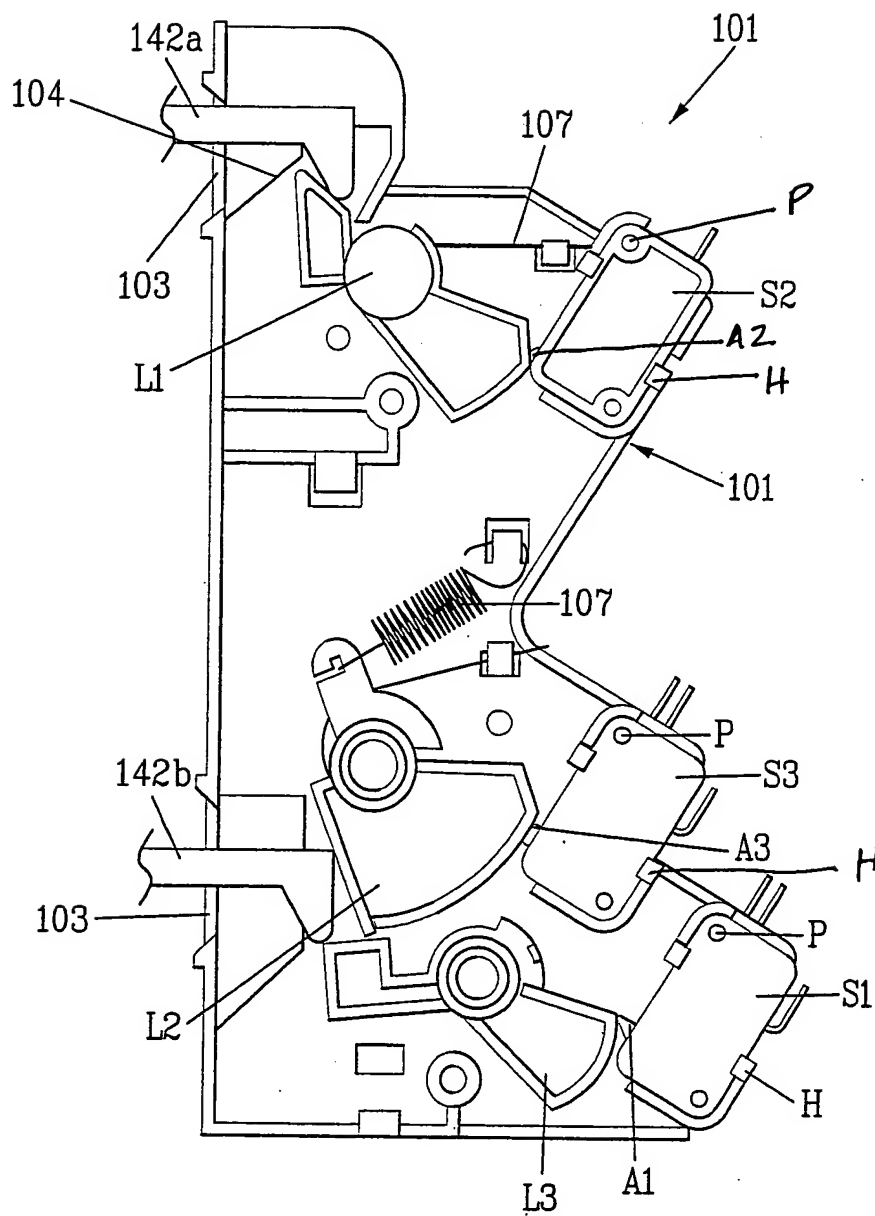


FIG. 6

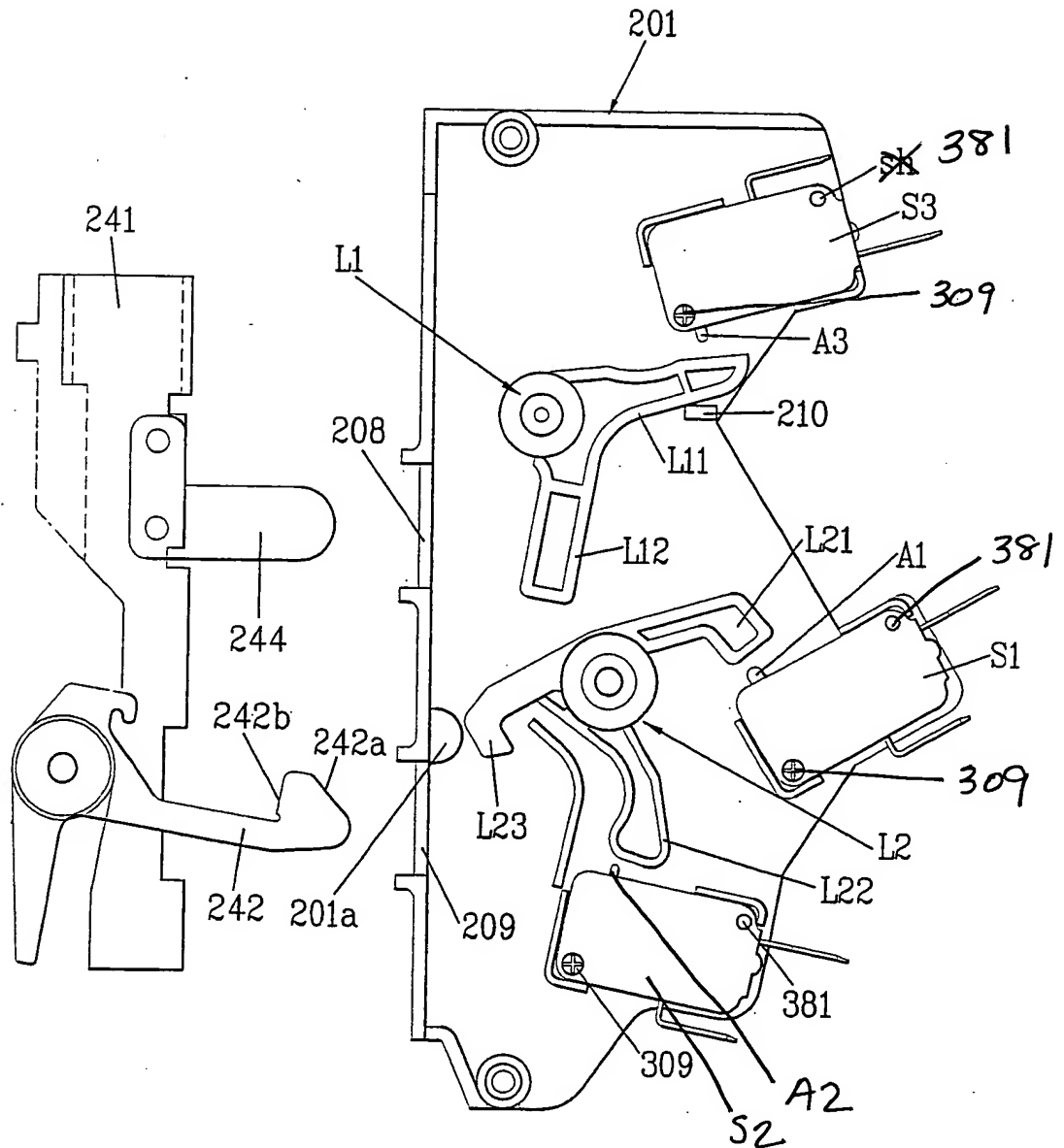


FIG. 8

